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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,096	03/05/2000	Bernhard Schick	98/07226 WO US	3039

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ROBERT W. BECKER & ASSOCIATES
707 HIGHWAY 66 EAST
SUITE B
TIJERAS, NM 87059

EXAMINER

WOO, STELLA L

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,096

Applicant(s)

SCHICK, BERNHARD

Examiner

Stella L. Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5, 10</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 13-16, 18, 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Plugge et al. (US 6,356,185 B1).

Regarding claim 13, Plugge et al. disclose a method for producing sounds (via automobile sound producer 10 and vehicle stereo system 14; Abstract; Figure 1), said method including the steps of:

detecting fluctuations in pressure in the fresh air stream supplied to the engine (via engine vacuum pressure sensor 6; col. 2, lines 59-63; col. 3, lines 21-23; col. 7, lines 8-10);

converting said fluctuations into signals (vacuum sensor 6 transforms engine manifold vacuum to an electrical signal for processing by audio filter 3; col. 3, lines 21-23); and

making said signals audible (signals from audio filter 3 are passed to the audio inputs of the vehicle's stereo amplifier and then to the vehicle's speaker system; col. 3, lines 35-38).

Regarding claims 14, 16, Plugge et al. disclose an apparatus comprising:

a pressure sensor (vacuum pressure sensor 6; col. 2, lines 59-63; col. 3, lines 21-23; col. 7, lines 8-10);

an amplification device (amplifiers 48 and 50 ; col. 3, lines 35-38); and

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at least one speaker (vehicle's speaker system; col. 3, lines 35-38).

Regarding claim 15, vacuum sensor 6 detects air fluctuations of an engine under load (col. 3, lines 26-30).

Regarding claim 18, audio filter 3 selectively suppresses lower frequencies and higher frequencies (col. 3, lines 24-34).

Regarding claims 21-22, automobile sound processor directs the blending of sound signatures depending on the dynamics of the host engine (col. 3, lines 39-44; col. 3, line 58 – col. 4, line 36).

Regarding claims 23-24, the pressure sensor is located in the vehicle's engine compartment, connected to the intake manifold (col. 2, lines 59-61; col. 7, lines 8-10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plugge et al.

The apparatus of Plugge et al. differs from claim 17 in that it does not specify that the pressure sensor is sensitive for a frequency range of from 1 Hz to 10 kHz. However, Applicant admits the well known use of a pressure sensor within automobiles which is sensitive for a broad frequency range, such as from 1 Hz to 10 kHz (see page 4, lines 11-16). It would have been obvious to an artisan of ordinary skill to use a well-known, commercially available pressure

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sensor which detects a broad frequency range, as taught in Applicant's specification, as the pressure sensor 6 of Plugge et al. for detecting a broad range of air fluctuations in the engine's intake manifold.

5. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plugge et al. in view of Kwang (US 5,384,855).

The apparatus of Plugge et al. differs from claims 19-20 in that although it provide for suppressing lower and higher frequencies (col. 3, lines 24-34), it does not specify the higher frequencies as being over 300 Hz and the lower frequencies as being below 30 Hz. However, Kwang teaches the desirability of attenuating frequencies lower than 40 Hz and those higher than 300 Hz in a vehicular audio system (col. 1, lines 43-50; via selectors 52 and 53 of Figure 1A) in order to eliminate resonances within the vehicle such that it would have been obvious to an artisan of ordinary skill to select similar frequency levels for attenuation by the audio filter of Plugge et al. in order to effect a pleasant audio experience within the vehicular cabin.

Conclusion

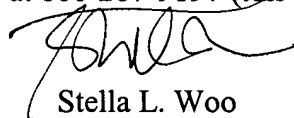
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prus, Helder, Koike et al., McDonald et al., Kunimoto show other engine sound systems.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (703) 305-4395. The examiner can normally be reached on Monday-Tuesday, Thursday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stella L. Woo
Primary Examiner
Art Unit 2643